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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,257	02/06/2006	Tomoo Sugawara	4670-0120PUS1	3057

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EXAMINER

TESKIN, FRED M

ART UNIT	PAPER NUMBER
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1796

NOTIFICATION DATE	DELIVERY MODE
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12/10/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/567,257	Applicant(s) SUGAWARA, TOMOO	
	Examiner Fred M. Teskin	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 7-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4,5,7 and 8 is/are allowed.
- 6) ☒ Claim(s) 9 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20081110</u> . | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

This Office action follows a reply filed on September 2, 2008, and an Information Disclosure Statement filed on November 10, 2008. Claims 1, 2, 4, 5 and 7-12 are currently pending.

Newly submitted claims 11 and 12 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

(I) original claims 1-6, drawn to a polymerizable composition and resin molded product, are classified in class 252, subclass 182.18, while new claims 11-12, drawn to a method for preparing a polymerizable composition and a method for preparing a resin molded product, are classified in class 524, subclass 855;

(II) the method and composition inventions are related as process of making and product made (see MPEP § 806.05(f)) and the process as claimed can be used to make another and materially different product, such as a composition devoid of cycloolefin monomer having a condensed ring made of an aliphatic ring having one or more carbon-carbon double bonds and an aromatic ring, or one which contains less than 10 weight-% of such condensed ring compound; and

(III) there would be a serious search and examination burden if restriction were not required because the inventions listed above have acquired a separate status in the art in view of their different classification and the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries).

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Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11-12 are **withdrawn** from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim 10 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Claim 10, in stating only that the polymerizable composition according to claim 1 is "for bulk polymerization," merely recites an intended utility for a composition of the same scope as defined in claim 1. Identification of a further substantive limitation imposed by claim 10 or amendment or cancellation of the claim is required.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 9 stands rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 4059561 (Arai).

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Arai is directed to a flame resistant resinous composition comprising (a) a ring-opened polymerization product of a norbornene derivative containing at least one polar group and (b) sufficient amounts of a flame retarding compound (col. 2, ll. 60+). Most relevant to the claimed invention is Sample No. 140 of Table 4 (cols. 51-52), wherein ring-opening polymer (17) is combined with flame retardant (A), together with Arai's description of shaped articles formed from the samples in Table 4 as exhibiting thermal stability and enhanced heat and flame resistant properties (col. 51, ll. 54-57). Polymer (17), as described at column 49, lines 25-30, is a ring-opened copolymer of 5-cyano-bicyclo[2.2.1]-heptene-2 (87.4 mole%) and 1,4-dihydro-1,4-methanonaphthalene (12.6 mole%), the latter corresponding to the applicants' monomer as defined in claims 1 and 2. From the reported mole percent values and molecular weights of the monomers, the weight proportion of 1,4-dihydro-1,4-methanonaphthalene is calculated to be 14.7 weight-% of the two monomers in the composition, which falls well within the claimed range for amount of the corresponding monomer. Further, as detailed in columns 45-46 (bridging paragraph), the polymer (17) was prepared by use of a well-known metathesis polymerization catalyst (WCl_6 /diethylaluminum chloride). And while the flame retardant is combined with previously formed polymer in Arai rather than the corresponding cycloolefin monomer(s), as in the applicants' polymerizable composition, in both instances the final product is a molded article comprising a ring-opened polymer of the same kind of condensed ring cycloolefin monomer and a flame retardant. Thus, the composition described in Sample No. 140 of Arai would be expected to produce a

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shaped article which is identical or insubstantially different, chemically and structurally, to products embraced by claim 9.

With respect to claim 9, applicants' arguments with respect to Arai have been fully considered but they are not persuasive.

Applicants assert that, unlike the flame retardant composition disclosed in Arai, since the polymerizable composition in the present invention is a monomer composition, beneficial effects (1) through (4), detailed on page 5 of the reply, are provided by applicants' invention.

As to the alleged benefit (1): the non-necessity of removing solvent in applicants' invention, even if affording improved manufacturing productivity compared to polymerizing in a solvent medium, has not been correlated to any unobvious difference over Arai with respect to the final shaped articles disclosed. In particular, there is no record evidence demonstrating that significant residual solvent, from the inclusion of 1,2-dichloroethane in the Arai polymerization, is in fact present in the final shaped article notwithstanding the post-polymerization recovery/drying conditions described therein (e.g., 48 hours @ 45°C, per col. 32, lines 51+).

As to the alleged benefits (2) - (3): applicants have submitted no objective evidence nor specifically identified any evidence already of record demonstrating unexpectedly improved performance for embodiments of the product of claim 9 compared to the closest embodiment of Arai, with respect to fiber reinforcement

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applications. Argument of counsel cannot take the place of evidence in the record, *In re Pearson*, 181 USPQ 641, 646 (CCPA 1974).

As to the alleged benefit (4): note that a stated advantage of the flame retardant composition of Arai is "good thermal stability such that no gel is produced during the heating of the composition on blending or working" (col. 2, lines 45-49). This would suggest improved stability of the disclosed compositions during the shear and/or thermal treatments applied when combining the polymer with a flame retardant; and, again, there is no objective evidence of record demonstrating unexpectedly superior stability for applicants' resin molded product, compared with shaped article obtained from the aforementioned sample of Arai.

Accordingly, the continued rejection of claim 9 is still deemed tenable and therefore must be maintained.

Claims 1, 2, 4, 5, 7 and 8 are allowable on the present record. A polymerizable composition comprising a cycloolefin monomer, a flame retardant and a metathesis polymerization catalyst, and wherein a monomer having a condensed ring made of an aliphatic ring having one or more carbon-carbon double bonds and an aromatic ring is used as the cycloolefin monomer in an amount as claimed, is not taught nor adequately suggested in the available prior art.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fred M Teskin/

Primary Examiner, Art Unit 1796

FMTeskin/12-03-08

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